NUCANA

A new Era in Oncology

Corporate Presentation

October 2021

www.nucana.com

Disclaimer

Forward-Looking Statements

This presentation contains "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995 that are based on the beliefs and assumptions and on information currently available to management of NuCana plc (the "Company"). All statements other than statements of historical fact contained in this presentation are forward-looking statements. Forward-looking statements include information concerning the company's planned and ongoing preclinical and clinical studies for the Company's product candidates and the potential advantages of those product candidates, including Acelarin, NUC-3373 and NUC-7738; the initiation, enrollment, timing, progress, release of data from and results of the Company's planned and ongoing clinical studies; the impact of COVID-19 on its preclinical studies, clinical studies, business, financial condition and results of operations; the utility of prior preclinical and clinical data in determining future clinical results; the timing or likelihood of regulatory filings and approvals for any of its product candidates; the Company's intellectual property; the amount and sufficiency of the Company's cash and cash equivalents to achieve its projected milestones; and estimates regarding the Company's expenses, future revenues and future capital requirements. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expects," "plans," "anticipates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other comparable terminology.

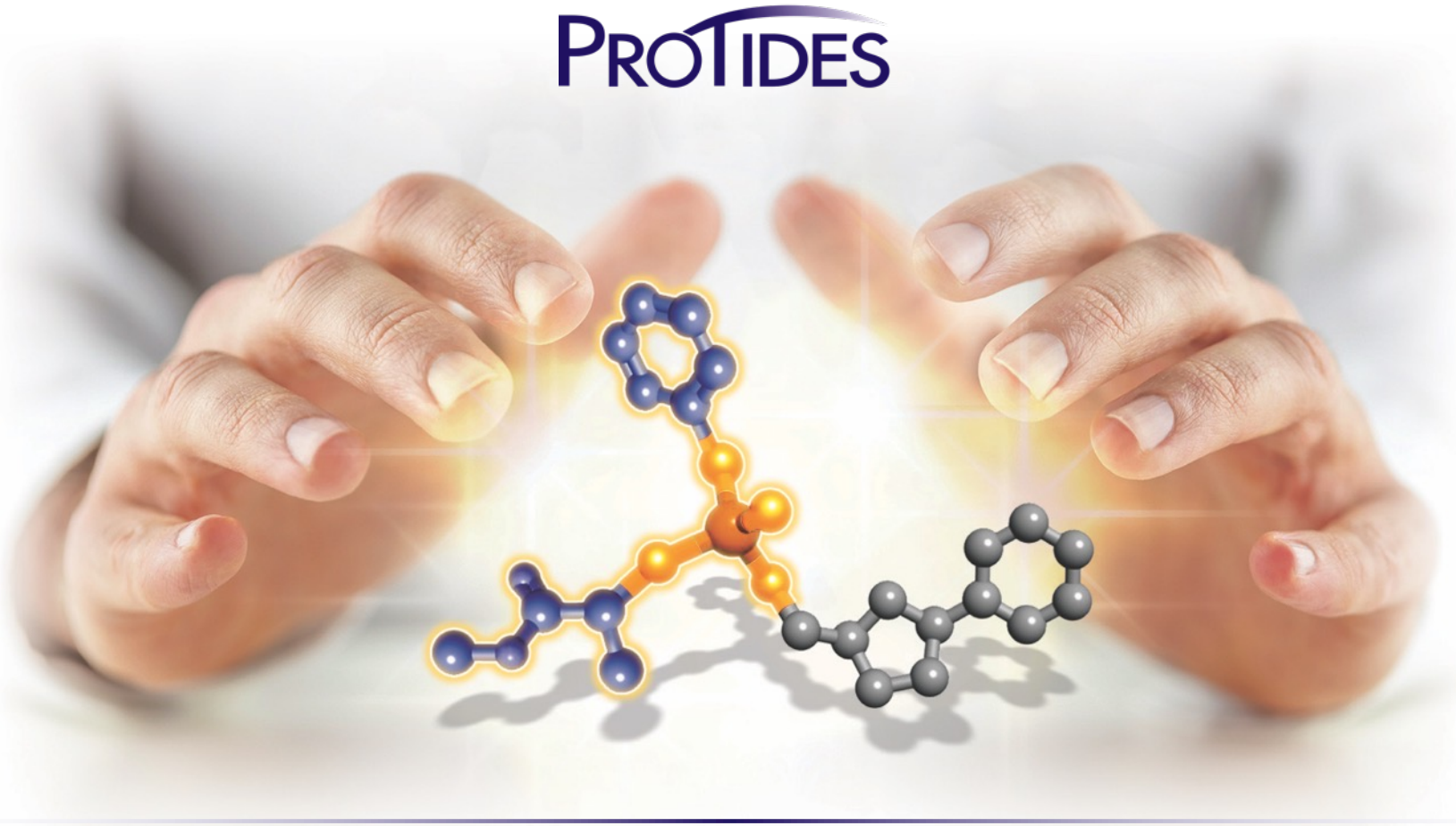
Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These risks and uncertainties include, but are not limited to, the risks and uncertainties set forth in the "Risk Factors" section of our Annual Report on Form 20-F for the year ended December 31, 2020 filed with the Securities and Exchange Commission ("SEC") on March 4, 2021, and subsequent reports that the Company files with the SEC.

Forward-looking statements represent the Company's beliefs and assumptions only as of the date of this presentation. Although the Company believes that the expectations reflected in the forward-looking statements are reasonable, it cannot guarantee future results, levels of activity, performance or achievements. Except as required by law, the Company assumes no obligation to publicly update any forward-looking statements for any reason after the date of this presentation to conform any of the forward-looking statements to actual results or to changes in its expectations.

Trademarks

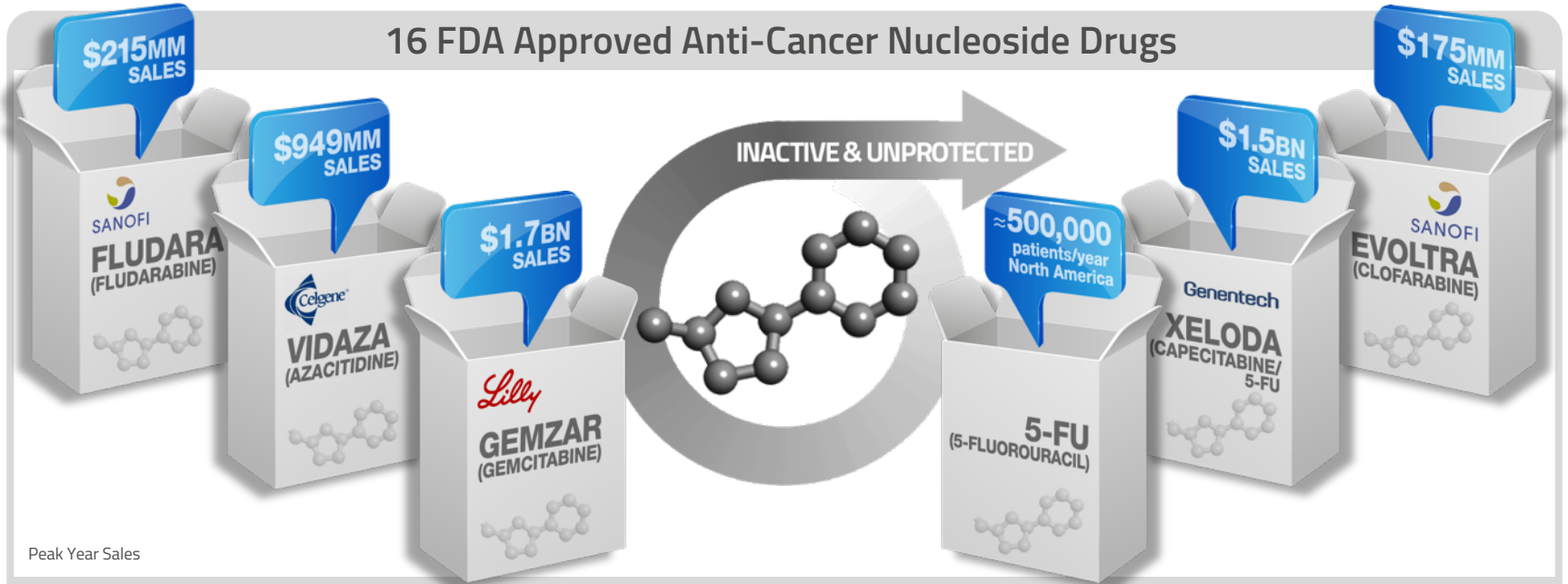
NuCana, the NuCana logo and other trademarks or service marks of NuCana plc appearing in this presentation are the property of NuCana plc. Trade names, trademarks and service marks of other companies appearing in this presentation are the property of their respective owners. Solely for convenience, the trademarks, service marks and trade names referred to in this presentation may be without the ® and ™ symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights to these trademarks, service marks and trade names.

Harnessing the Power of Phosphoramidate Chemistry



A New Era in Oncology

Nucleoside Analogs: Flawed ProDrugs



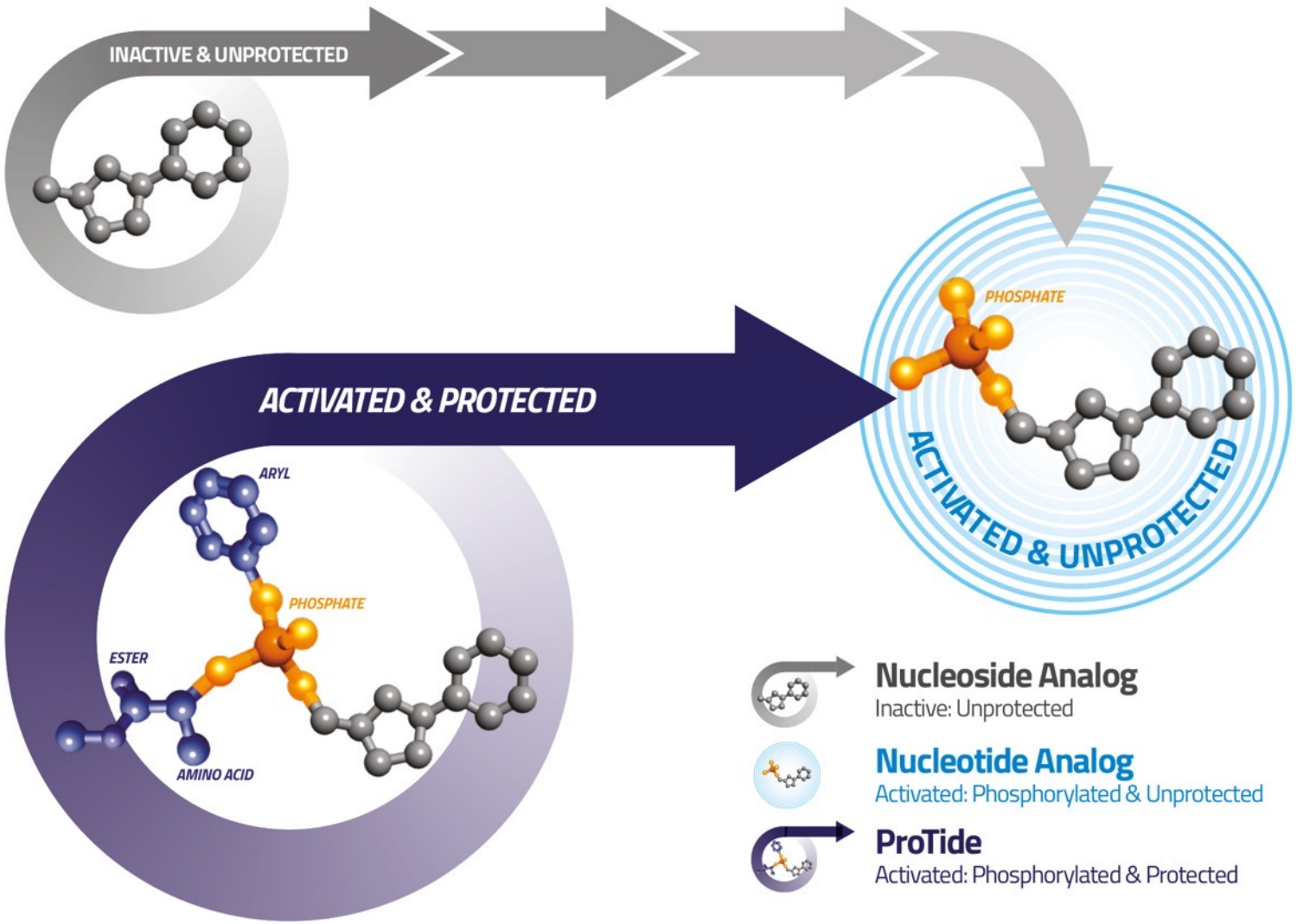
Limitations of Nucleoside Analogs

Uptake
Dependent on membrane transporters to enter cancer cells

Activation
Requires phosphorylation within cancer cells to exert anti-cancer activity

Breakdown
Subject to breakdown & generation of toxic byproducts

Transforming Nucleoside Analogs into ProTides



ProTides: A New Era In Anti-Virals

GILEAD

$65 billion*

SOVALDI® SOFOSBUVIR

Hepatitis C

$51 billion**

TAF

H.I.V.

$5 billion

Veklury®
remdesivir

COVID-19

Transforms Therapeutic Index

Overcomes Viral Resistance Mechanisms

* Sovaldi + Harvoni + Epclusa + Vosevi cumulative sales through 30 June 2021

** Genvoya + Descovy + Odefsey + Biktarvy + Symtuza cumulative sales through 30 June 2021

ProTides: A New Era in Oncology

44% Overall Response Rate[1]

ACELARIN

300x More potent than 5-FU[2]

NUC-3373

185x More potent than 3′-dA[3]

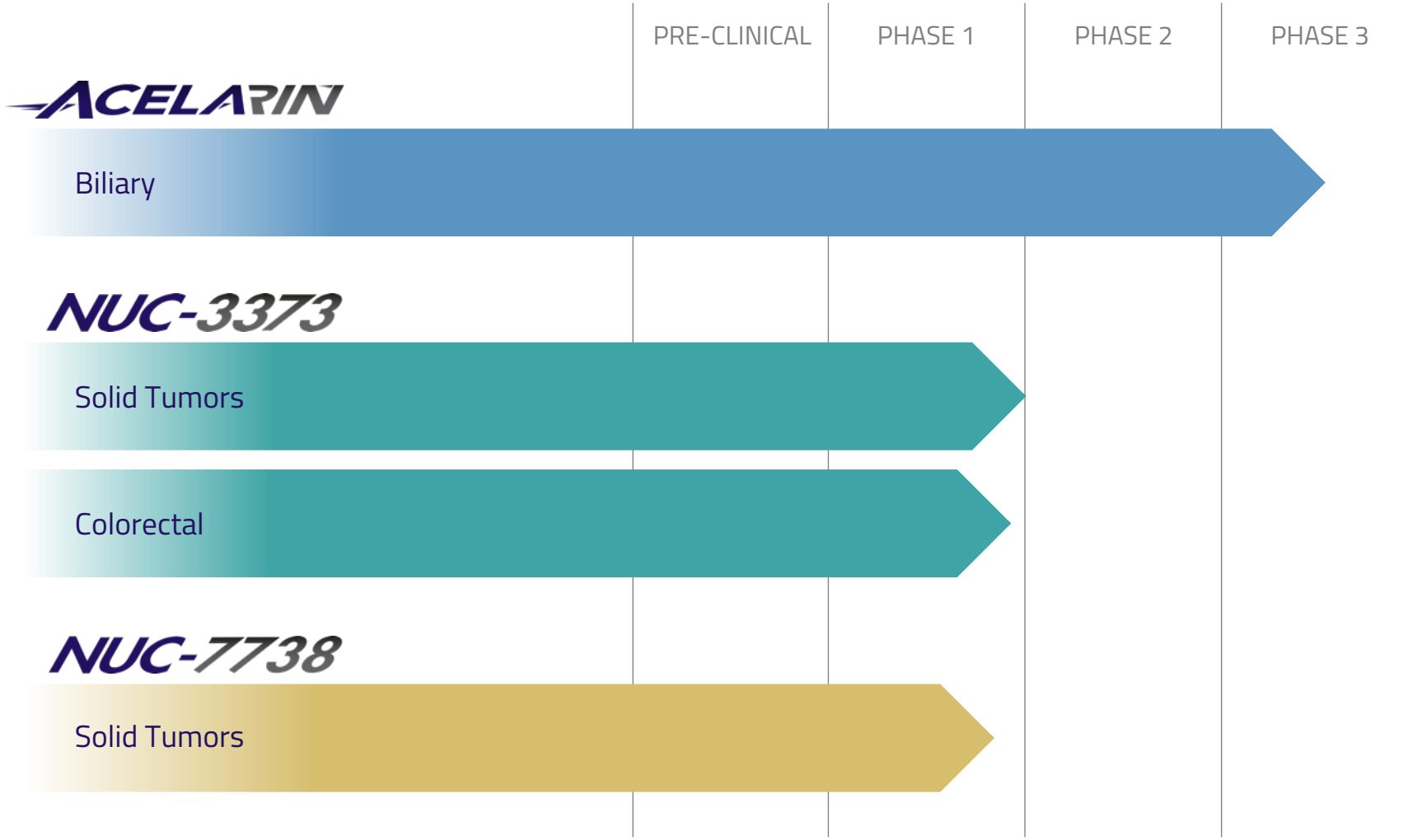
NUC-7738

Transforms Therapeutic Index

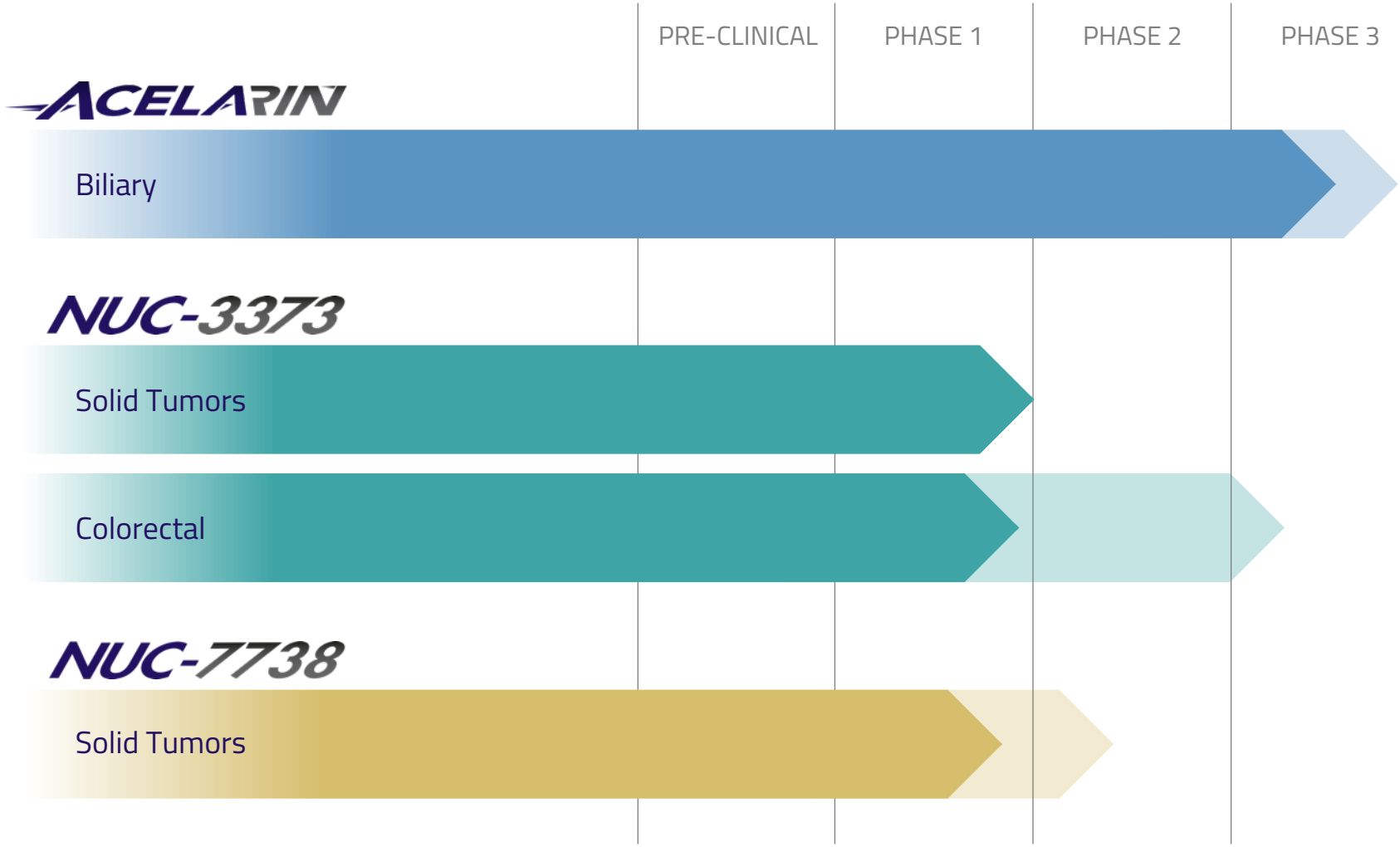
Overcomes Cancer Resistance Mechanisms

[1] Efficacy evaluable patients with advanced biliary tract cancers (n=16) - McNamara *et al* (2020) The Oncologist;25: 1-10
[2] Pre-clinical data - Ghazaly *et al* ESMO September 2017
[3] Pre-clinical data – Symeonides *et al* ESMO September 2020

Development Status: Current



Development Status: Planned End 2021



Strong Balance Sheet & Multiple Inflection Points

Nasdaq NCNA

Cash & Cash Equivalents
at June 30, 2021
~$101 million[#]

Important Data Readouts
throughout
2021 & 2022

[#]Based on exchange rate of £1.00 to $1.38 at 30 June 2021

Well Capitalized to Achieve Key Milestones

ACELARIN

- Complete ongoing Phase 3 BTC study (NuTide:121)
- **File NDA for BTC**

NUC-3373

- Complete ongoing Phase 1 solid tumor study (NuTide:301)
- Complete ongoing Phase 1b/2 CRC study (NuTide:302)
- Initiate & complete Phase 3 CRC study (NuTide:323)
- Initiate & complete Phase 1b solid tumor basket study (NuTide:303)
- **File NDA for CRC**

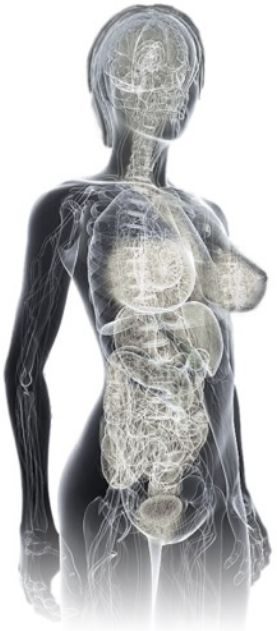
NUC-7738

- Complete ongoing Phase 1 study (NuTide:701)
- Initiate & complete Phase 2 study

ACELARIN
NUC-1031

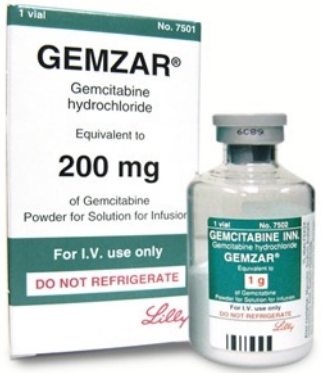
A transformation of gemcitabine

ACELARIN: Overview of Gemcitabine



- WHO list of essential medicines
- First approved for medical use in 1995
- Approved in pancreatic, ovarian, breast & lung
- Widely used in other cancers
- Peak annual sales of $1.7 billion

World Health Organization



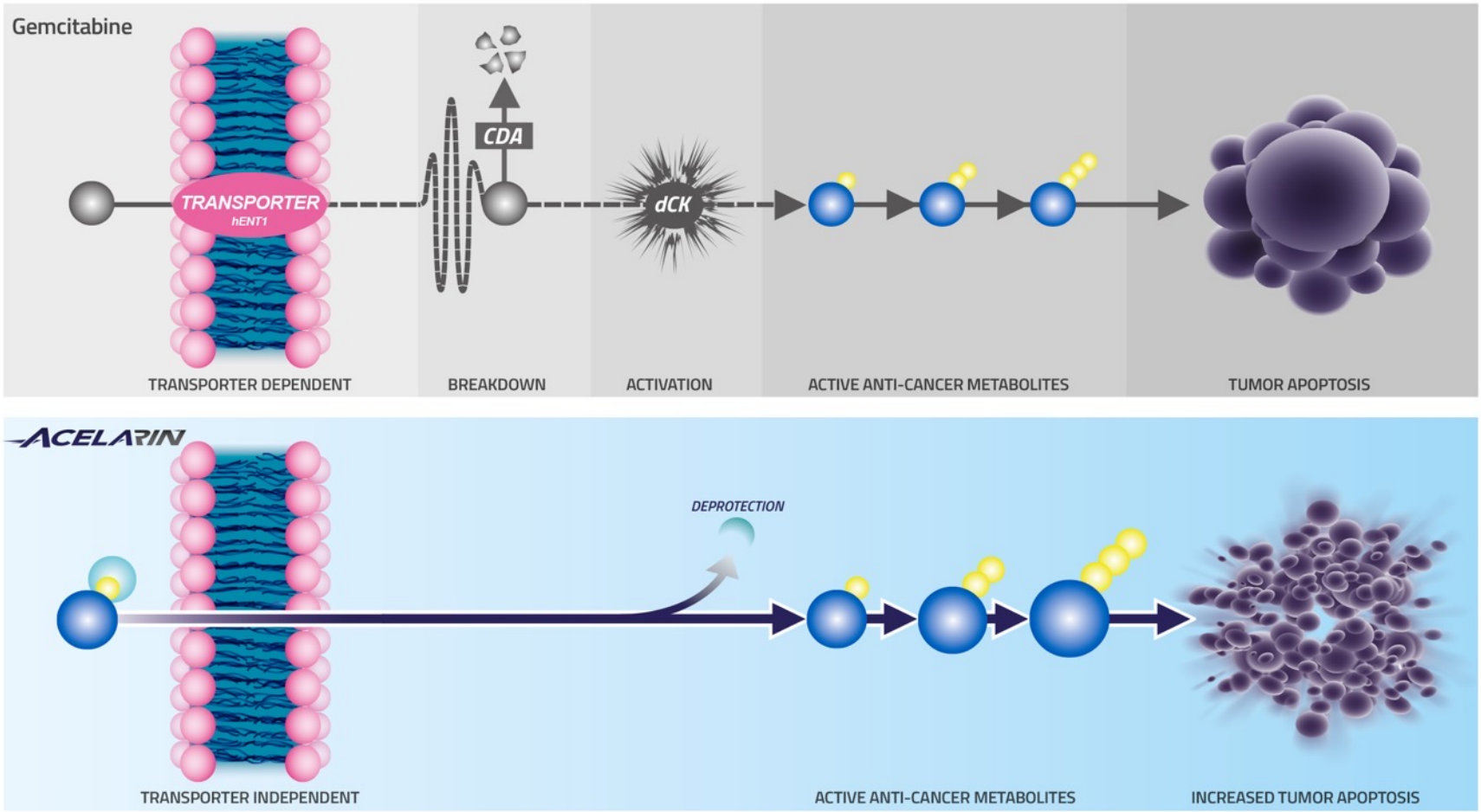
Limitations of Gemcitabine

Uptake
Dependent on membrane transporters to enter cancer cells

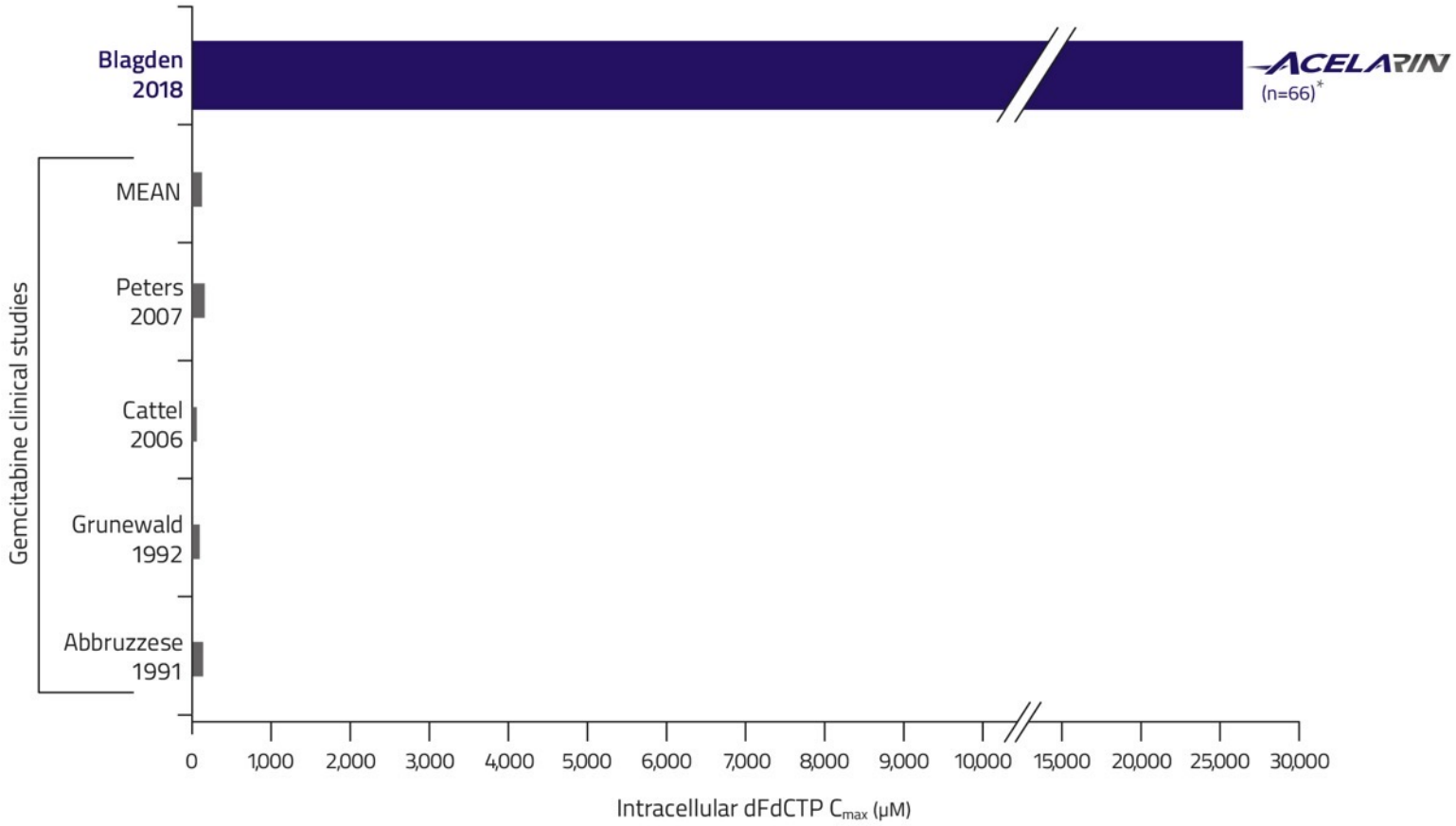
Breakdown
Subject to breakdown and generation of toxic byproducts

Activation
Requires phosphorylation within cancer cells to exert anti-cancer activity

ACELARIN: Overcomes The Key Cancer Resistance Mechanisms



ACELARIN: Very High Intracellular dFdCTP (C_{max})

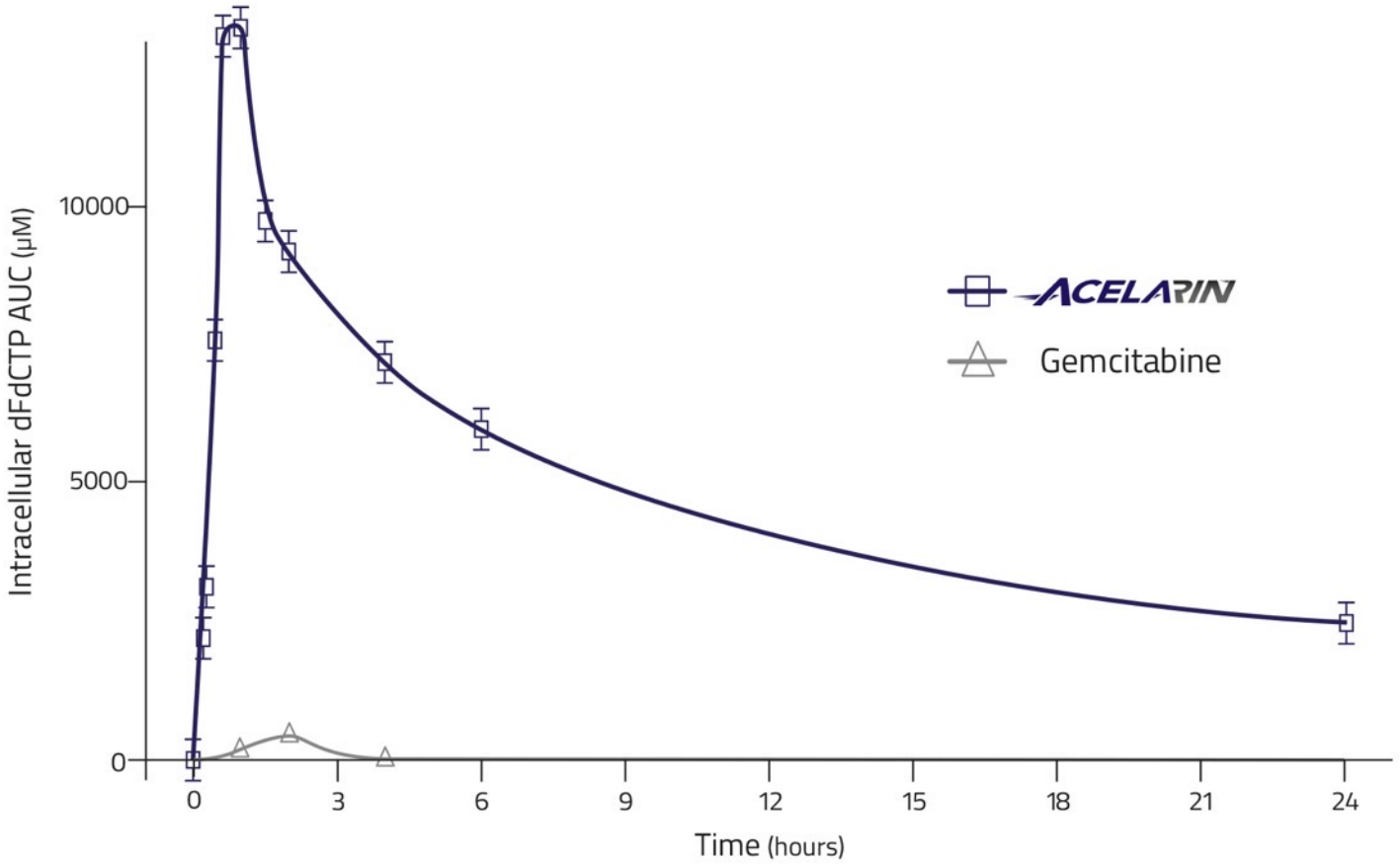


ACELARIN achieved **217x** higher intracellular levels of dFdCTP than gemcitabine

Equimolar dose comparison

* Blagden *et al* (2018) *Br J Cancer*, 119:815-822

ACELARIN: Very High Intracellular dFdCTP (AUC)



ACELARIN achieved 139x greater intracellular AUC of dFdCTP than gemcitabine

Blagden *et al* (2015) *J Clin Oncol*; 33; Suppl Abstract ID: 2547 (ASCO poster May 2015)
Cattel *et al* (2006) *Annals Onc* (supp); 17: v142-v147
Blagden *et al* (2018) *Br J Cancer*; 119:815-822

ACELARIN: Solid Tumor Phase 1 Study (monotherapy)

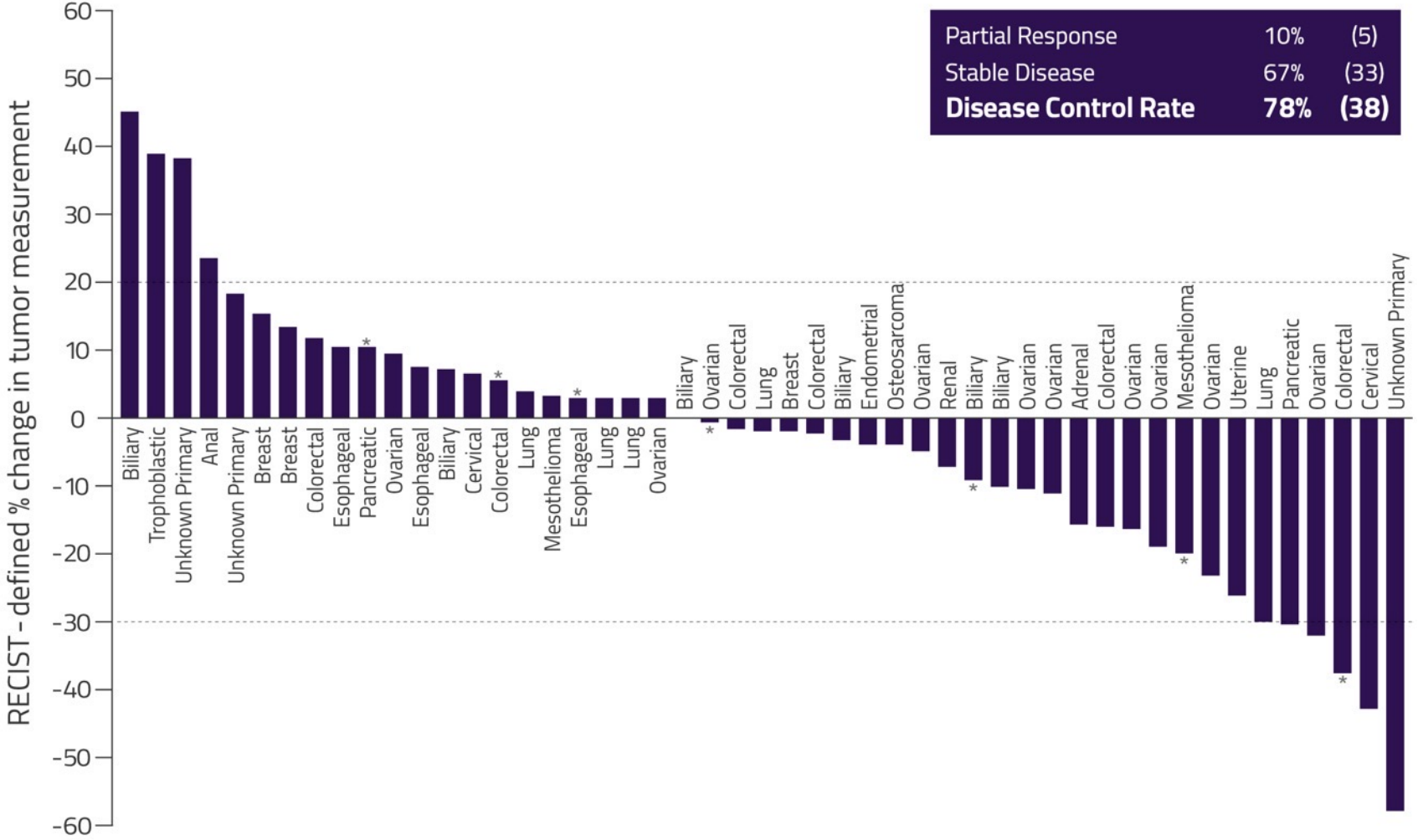
- Phase 1 dose-escalation study in patients with advanced solid tumors
- All patients had metastatic spread
- Rapidly progressing disease
- Exhausted all other therapeutic options
- Objective: Recommended Phase 2 dose

PRO-001

Number of patients	Evaluable patients (≥2 cycles)	Primary cancer types	Age (median)	Prior chemotherapy regimens
68	49	19	56 (range 20-83)	3 (range 1-10)

Blagden *et al* (2018) *Br J Cancer*; 119:815-822

ACELARIN: Solid Tumor Phase 1 Study Best Overall Response (monotherapy)



PRO-001

*New Lesion
Evaluable patients (n=49)
Blagden *et al* (2018) *Br J Cancer*, 119:815-822

ACELARIN: Ovarian Phase 1b Study (combination)

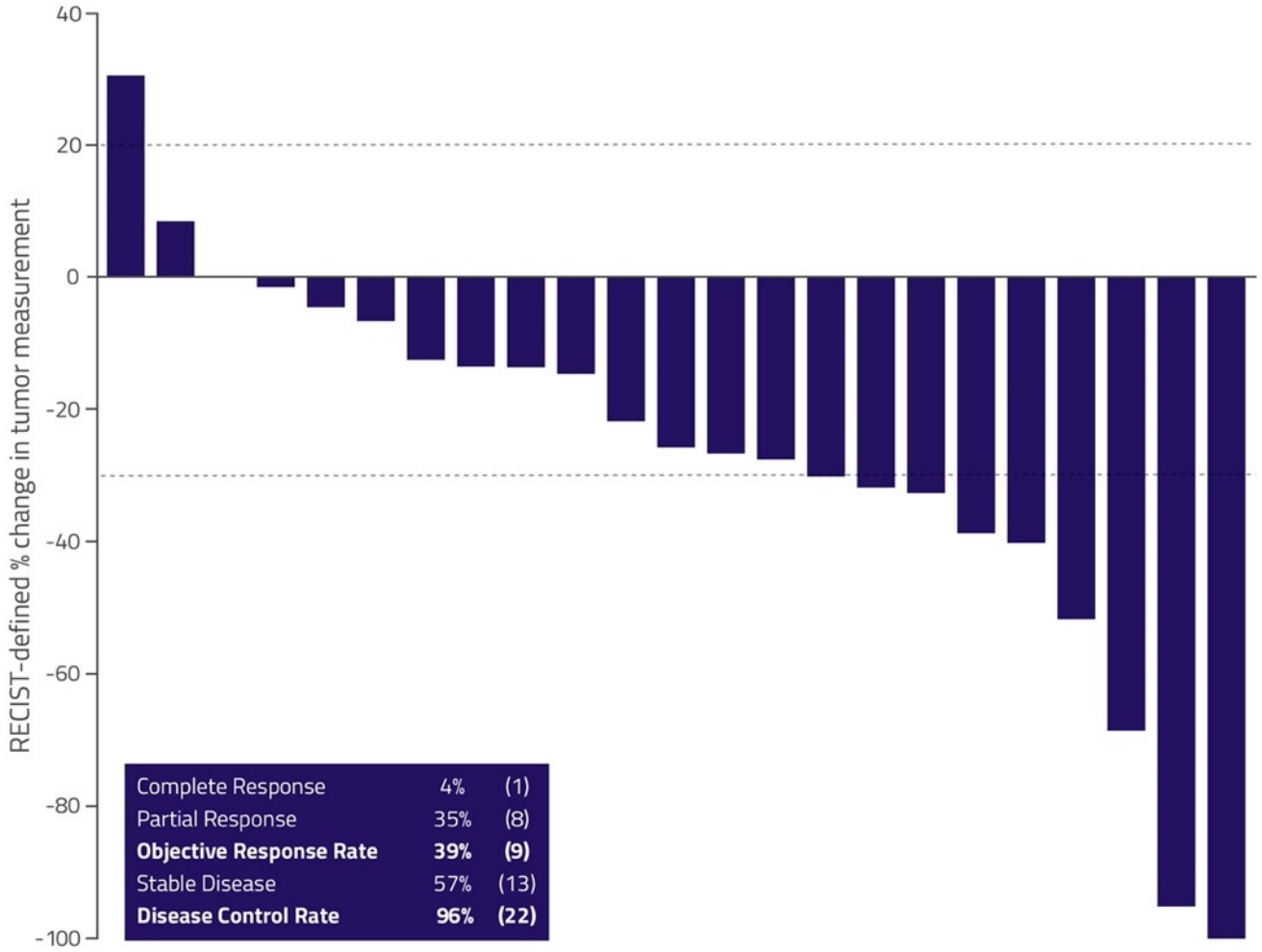
- Combination: Acelarin + carboplatin
- Dose escalation: 3 + 3
  - Acelarin: 500 mg/m^2 to 750 mg/m^2
  - Carboplatin: AUC 4 to 5
- All patients had metastatic spread
- Rapidly progressing disease
- Objective: Recommended Phase 2 dose

PRO-002

Number of patients	Evaluable patients (≥1 cycle)	Age (median)	Prior chemotherapy regimens
25	23	64 (range 37-77)	3 (range 2-8)

Blagden *et al* (2017) *Ann Oncol*; 28; Suppl 5 Abstract ID: 968P (ESMO poster September 2017)

ACELARIN: Ovarian Phase 1b Study Best Overall Response (combination)



Evaluable patients (n=23)
Blagden *et al* (2017) *Ann Oncol*; 28; Suppl 5 Abstract ID: 968P (ESMO poster September 2017)
Data as of September 2017

PRO-002

ACELARIN: Biliary Phase 1b Study (combination)

- First-line treatment
- Locally advanced or metastatic biliary tract cancer
- Objectives: Safety & dose selection
  - Cohort 1: Acelarin 625 mg/m^2 + cisplatin 25 mg/m^2 (n=8)
  - Cohort 2: Acelarin 725 mg/m^2 + cisplatin 25 mg/m^2 (n=6)
  - Cohort 3: Acelarin 625 mg/m^2 + cisplatin 25 mg/m^2 (n=7)

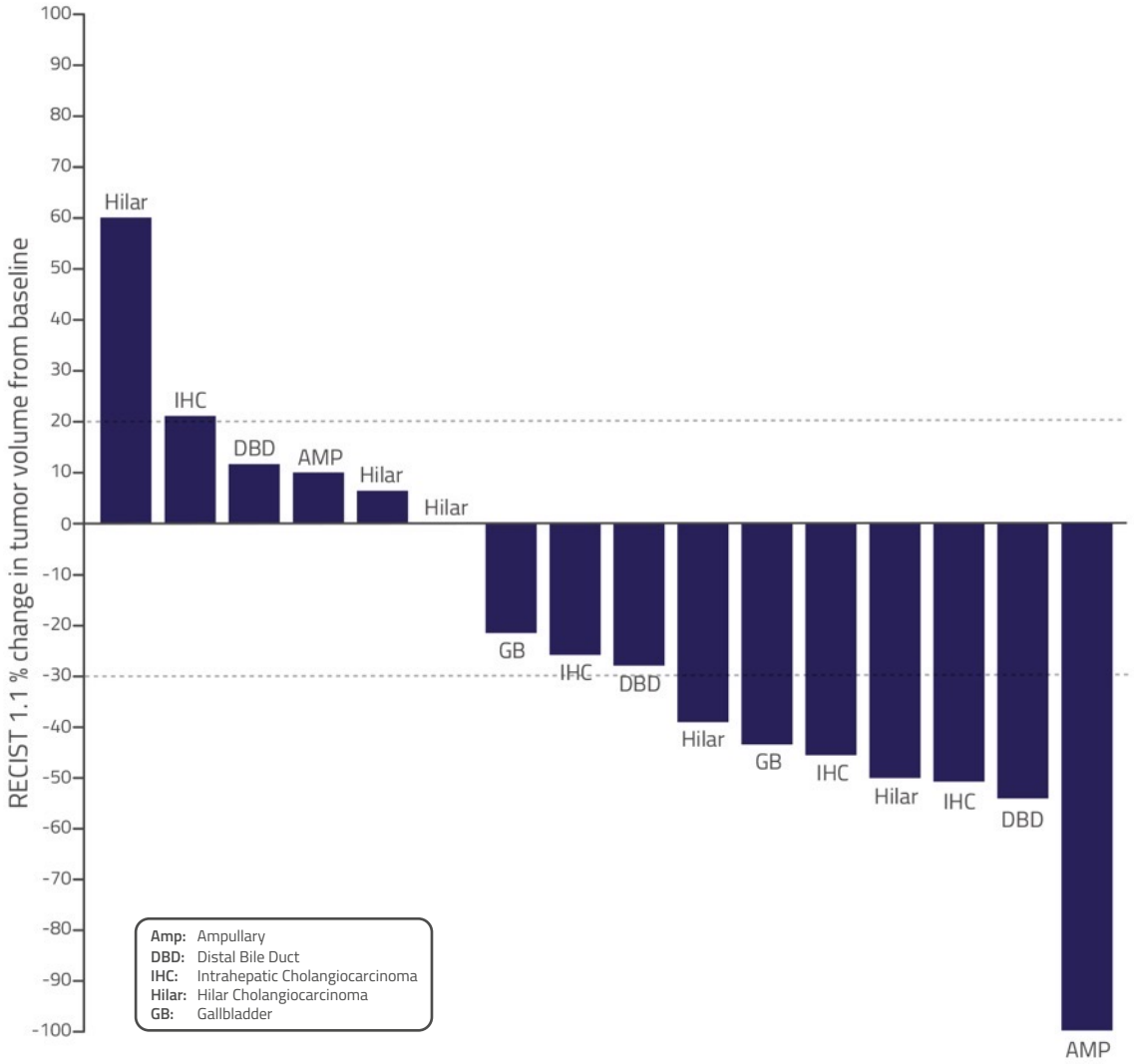
ABC-08

Number of patients	Evaluable patients*	Age (median)
21	16	61 (range 47-78)

* Efficacy evaluable patients: measurable disease at baseline; ≥1 cycle Acelarin; ≥1 follow-up radiographic assessment

McNamara *et al* (2020) *Oncologist;* 26 (4):e699-e678

ACELARIN: Biliary Phase 1b Study Best Overall Response (combination)



ABC-08

McNamara *et al* (2020) *Oncologist;* 26 (4):e699-e678
Efficacy Evaluable Population

ACELARIN: ABC-08 and ABC-02 Comparison

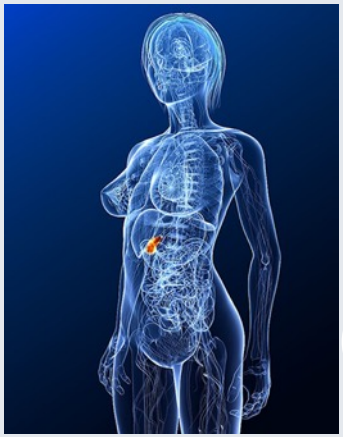
ABC-08 Study ACELARIN (625 & 725 mg/m^2) + cisplatin	ABC-02 Study Gemcitabine (1000 mg/m^2) + cisplatin
Complete Response 6% (1/16)	Complete Response 0.6% (1/161)
Partial Response 38% (6/16)	Partial Response 25% (41/161)
Objective Response Rate 44% (7/16)	Objective Response Rate 26% (42/161)

McNamara *et al* (2020) *Oncologist;* 26 (4):e699-e678
Valle *et al* (2010). *N Eng J Med*; 362: 1273-1281
Efficacy Evaluable Population

ABC-08

ACELARIN: Ongoing Biliary Phase 3 Study

NUTIDE 121



First-line treatment of patients with locally advanced or metastatic biliary tract cancer
(n=828)

R

ACELARIN
725 mg/m²
+
cisplatin
25 mg/m²

gemcitabine
1000 mg/m²
+
cisplatin
25 mg/m²

Follow up

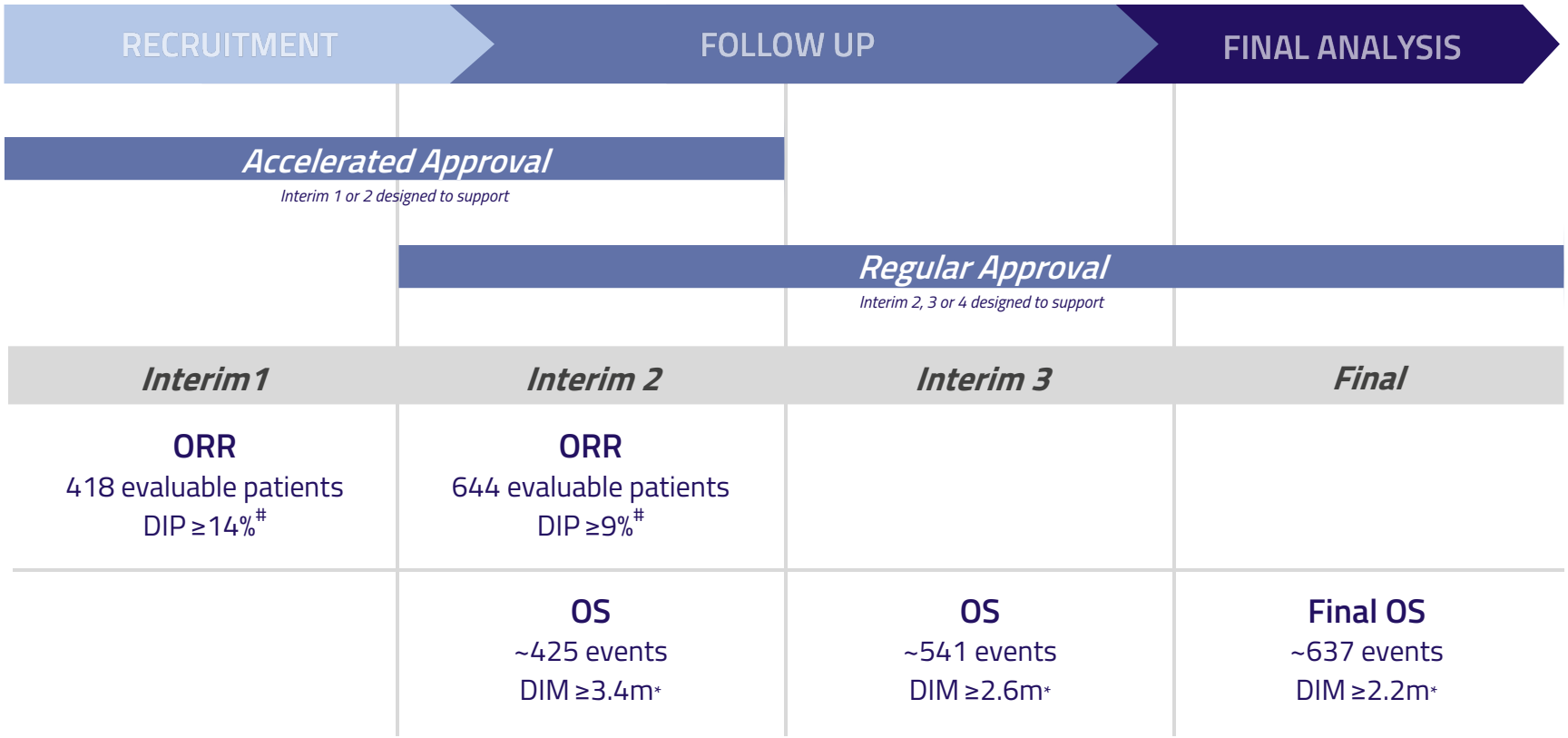
OS
ORR

Enrollment | *Treatment* | *Endpoints*

NUTIDE 121

ACELARIN: Ongoing Biliary Phase 3 Study (Statistical Plan)

NuTIDE 121 Primary Endpoints: OS; ORR



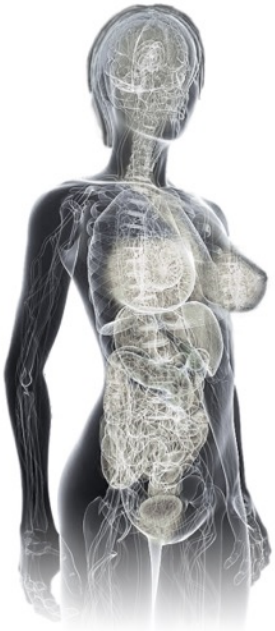
DIP = Difference in observed proportions (vs. an estimated 19.0%) for statistical significance. Measurable disease at baseline and ≥28 weeks follow-up.
* DIM = Difference in observed medians (vs. an estimated 11.7 months) for statistical significance.

NuTIDE 121

NUC-3373

A transformation of 5-FU

NUC-3373: Overview of Fluorouracil (5-FU)

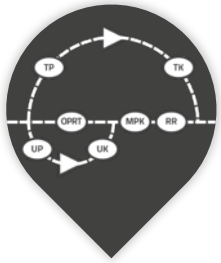


- WHO list of essential medicines
- First approved for medical use in 1962
- ~500,000 patients receive 5-FU annually in North America
- Unpredictable PK profile
- 10-15% Overall Response Rate (colorectal cancer)

Limitations of Fluorouracil (5-FU)

Breakdown
>85% breakdown by DPD, generating toxic byproducts

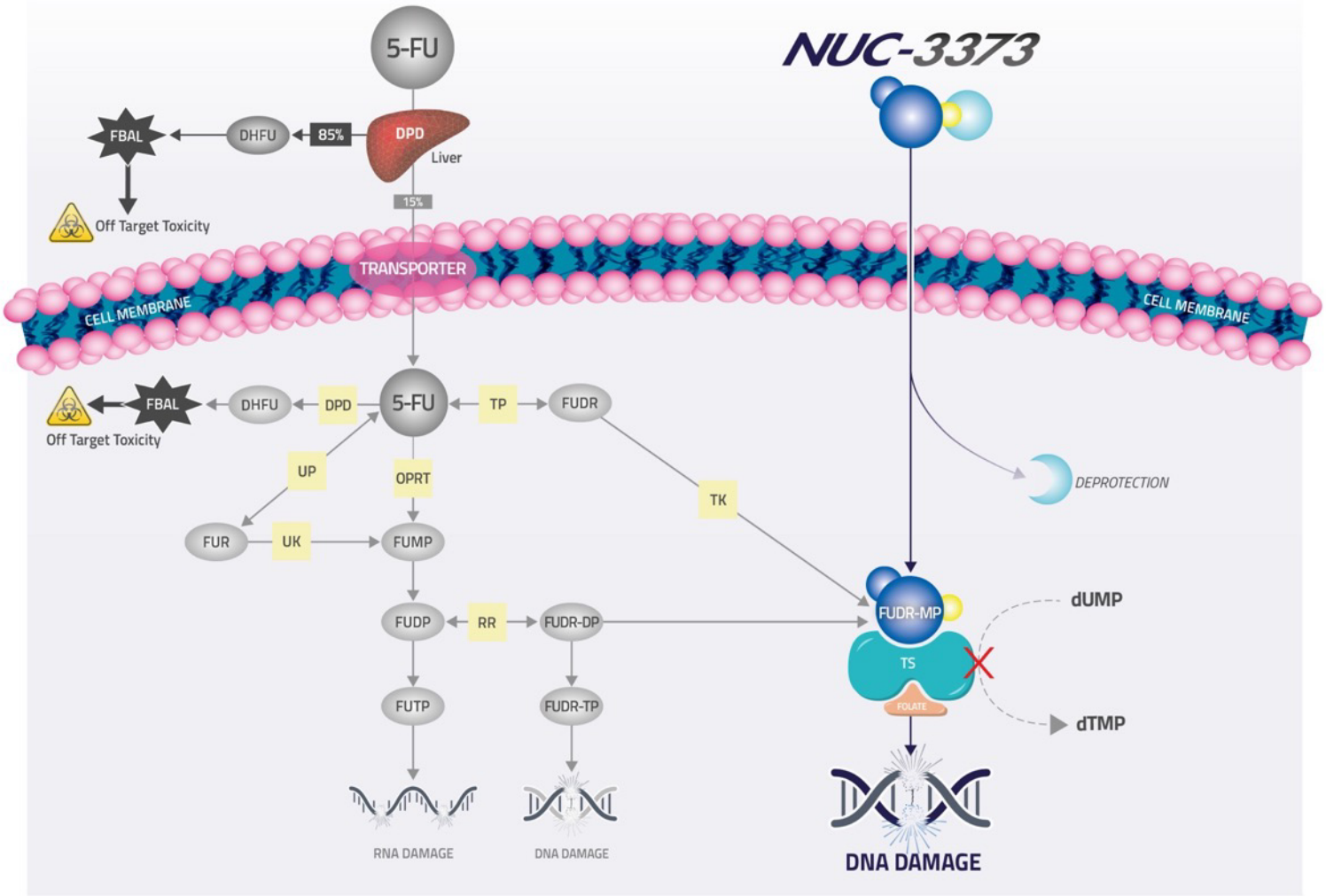
Transport
Requires active transport



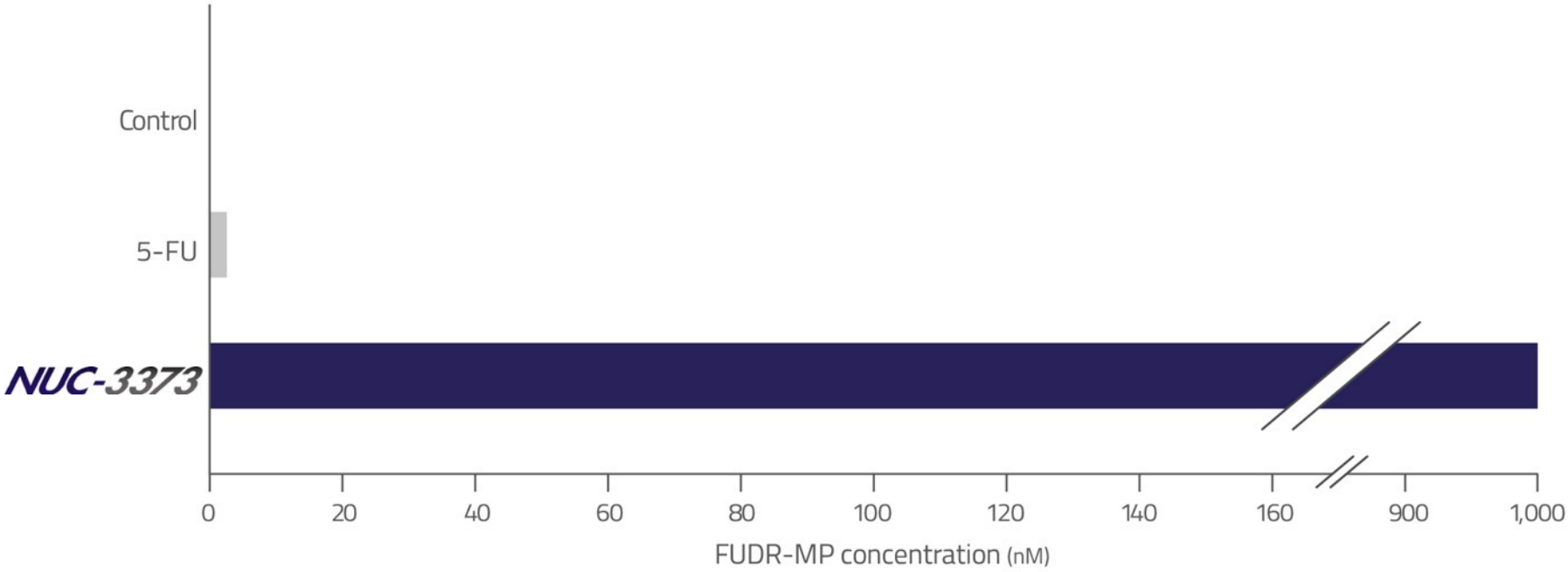
Activation
Multi-step phosphorylation process

Dosing
46-hour continuous infusion

NUC-3373: 5-FU Metabolism and Mechanism of Action Comparison



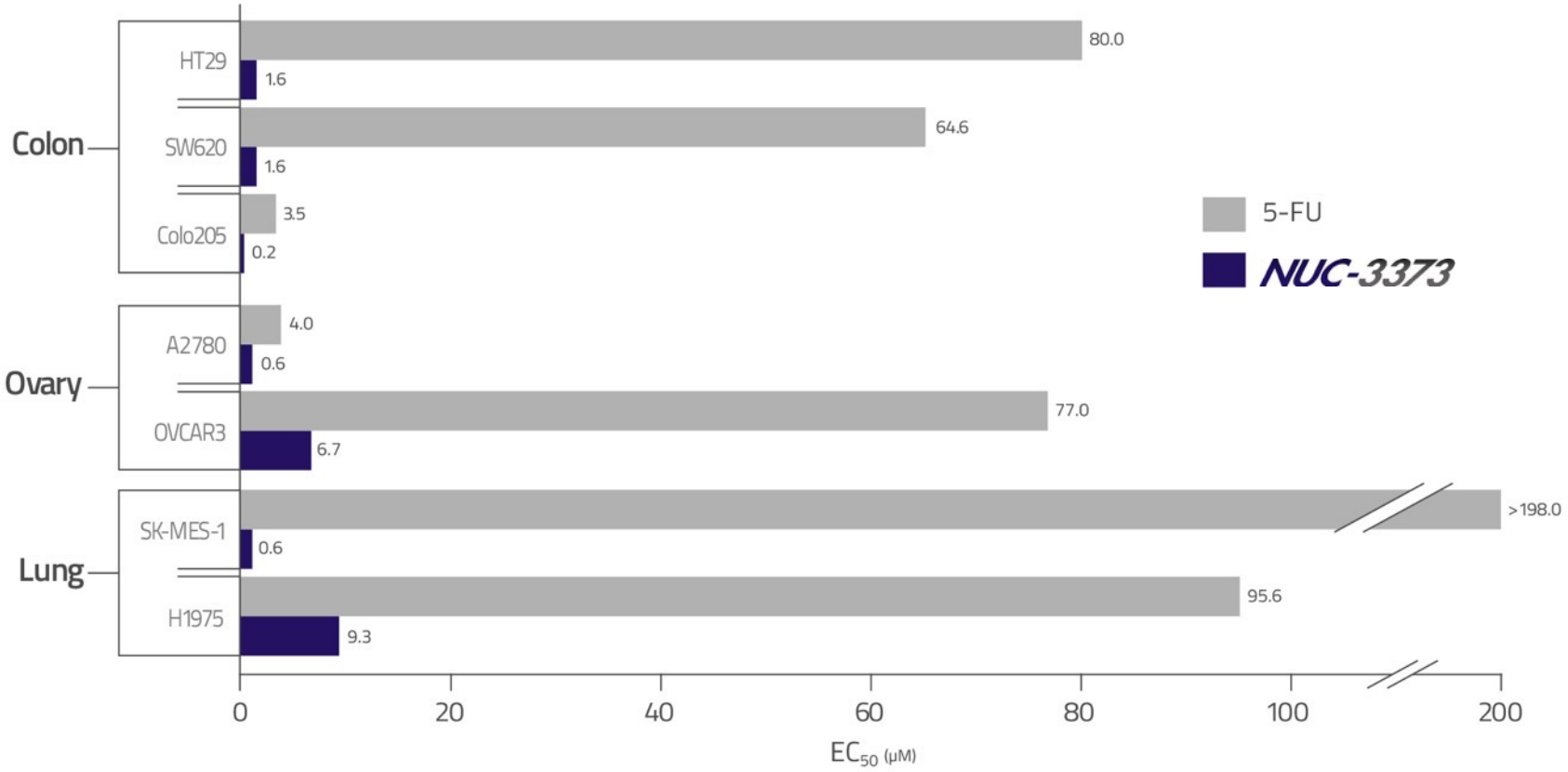
NUC-3373: Very high Intracellular FUDR-MP (pre-clinical)



NUC-3373 generated **366x** higher levels of active anti-cancer metabolite FUDR-MP than 5-FU

Equimolar dose comparison
Ghazaly *et al* (2017) *Ann Oncol*; 25: Suppl 5 Abstract ID:385P (ESMO poster September 2017)

NUC-3373: Greater Anti-Cancer Activity than 5-FU (pre-clinical)



NUC-3373 had up to **330x** greater anti-cancer activity than 5-FU

Ghazaly *et al* (2017) *Ann Oncol*; 25: Suppl 5 Abstract ID:385P (ESMO poster September 2017)

NUC-3373: Solid Tumor Phase 1 Study (monotherapy)

- Phase 1 dose-escalation study in patients with advanced solid tumors
- All patients have metastatic spread
- Rapidly progressing disease
- Exhausted all other therapeutic options
- Objective: Recommended Phase 2 dose + schedule

NuTide 301

Number of patients	Age (median)	Prior chemotherapy regimens
59*	59	3
Part 1 (n= 43) Part 2 (n=16)	(range 20-77)	(range 0-11)

Spiliopoulou *et al* (2021) *Ann Oncol;* 32: Suppl 5 Abstract ID 549P (ESMO poster September 2021)
Data as of August 2021
*Safety evaluable population; patients who received ≥1 dose of NUC-3373

NUC-3373: Solid Tumor Phase 1 Study (monotherapy)

Favorable safety profile

- NUC-3373 is well-tolerated
- No NUC-3373 related deaths
- 10 pts Grade 3 treatment-related AEs
- No Grade 4 treatment-related AEs
- RP2D for NUC-3373 monotherapy is 2500 mg/m^2 Q1W

Metastatic Colorectal Cancer

70 years, male
6 prior lines

1) 5-FU:
based chemoradiotherapy (adjuvant)
2) FOLFIRI:
for metastatic disease
3) CAPOX:
progressed within **2 months**
4) FOLFIRI:
progressed within **8 months**
5) LONSURF:
progressed within **3 months**
6) Irinotecan:
treatment for **1 month**

NUC-3373
1,500 mg/m^2 q1w

Stable Disease:
9 months

Metastatic Basal Cell Carcinoma

55 years, male
2 prior lines

1) Vismodegib:
for **11 months**
2) Paclitaxel + carboplatin:
for **3 months**

NUC-3373
1,500 mg/m^2 q2w

Stable Disease:
10 months

Metastatic Cholangiocarcinoma

60 years, female
1 prior line

1) Gemcitabine + cisplatin:
progressed within **6 months**

NUC-3373
1,125 mg/m^2 q1w

Stable Disease:
11 months

NUTIDE 301

Spiliopoulou *et al* (2021) *Ann Oncol;* 32: Suppl 5 Abstract ID 549P (ESMO poster September 2021)
Data as of August 2021

NUC-3373: Ongoing Colorectal Phase 1b/2 Study (combination)

Patients with advanced colorectal cancer

- **Phase 1b**
  - Received ≥2 prior lines of fluoropyrimidine-based regimens
  - Exhausted all other therapeutic options
- **Phase 2**
  - Received 1 or 2 prior lines of fluoropyrimidine-based regimens

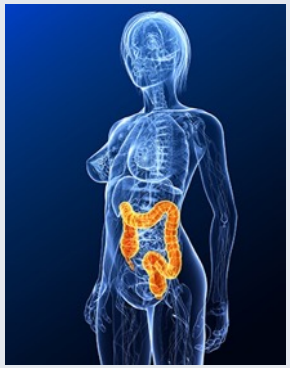
NuTIDE 302

Number of patients (enrolled to date)	Age (median)	Prior chemotherapy regimens
38	58 (range 33-75)	4 (range 2-13)

Berlin *et al* (2021) *Ann Oncol;* 32: Suppl 5 Abstract ID 745P (ESMO poster September 2021)
Data as of April 2021

NUC-3373: Ongoing Colorectal Phase 1b/2 Study (combination)

NUTIDE 302



Patients with advanced colorectal cancer

Enrollment

Part 1 (completed)

- Arm 1a: NUC-3373 (Q2W) ± LV, ≥3rd line (n=10)
- Arm 1b: NUC-3373 (Q2W) ± LV, ≥3rd line (n=11)
- Arm 1c: NUC-3373 (Q1W) + LV, ≥3rd line (n=17)

Part 2 (ongoing)

Dose Escalation

- Arm 2a: NUFOX (Q1W), ≥3rd line (n=3+3)
- Arm 2b: NUFIRI (Q1W), ≥3rd line (n=3+3)

RP2D

Dose Expansion

- Arm 2c: NUFOX (Q1W), 2nd/3rd line (n≈10)
- Arm 2d: NUFIRI (Q1W), 2nd/3rd line (n≈10)

Part 3 (planned)

RP2D

- Arm 3a: NUFOX (Q1W) + bevacizumab, 2nd line (n≈10)
- Arm 3b: NUFOX (Q2W) + bevacizumab, 2nd line (n≈10)
- Arm 3c: NUFIRI (Q1W) + bevacizumab, 2nd line (n≈10)
- Arm 3d: NUFIRI (Q2W) + bevacizumab, 2nd line (n≈10)

NUFOX (Q1W) = NUC-3373 + LV Q1W + oxaliplatin Q2W
NUFOX (Q2W) = NUC-3373 + LV Q2W + oxaliplatin Q2W
NUFIRI (Q1W) = NUC-3373 + LV Q1W + irinotecan Q2W
NUFIRI (Q2W) = NUC-3373 + LV Q2W + irinotecan Q2W

Additional cohorts may be opened.

NUTIDE 302

NUC-3373: Favorable Safety Profile (interim data)

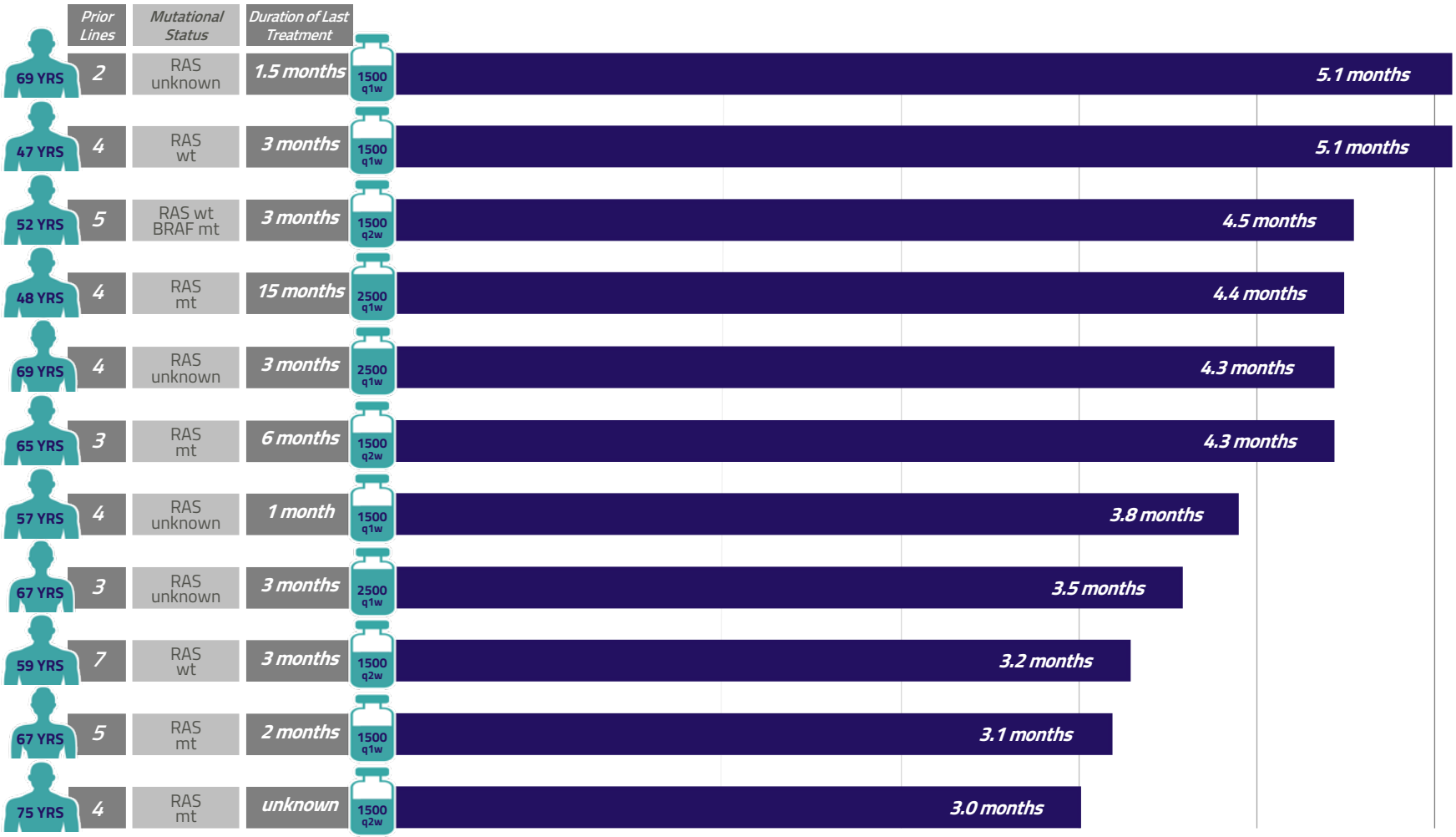
	NUC-3373 (n=38)*		5-FU IV (n=143)		5-FU Bolus (n=593)		Capecitabine (n=596)	
Category	All Grades (%)	G3 or G4 (%)	All Grades (%)	G3 or G4 (%)	All Grades (%)	G3 or G4 (%)	All Grades (%)	G3 or G4 (%)
Neutropenia	**0**	**0**	**48**	**13**	**46**	**21**	**13**	**3**
Anemia	18	5	91	2	79	2	80	3
Diarrhea	**32**	**0**	**45**	**6**	**61**	**12**	**55**	**15**
Nausea	45	5	55	4	51	4	43	4
Vomiting	42	0	32	3	30	5	27	5
Mucositis/Stomatitis	**11**	**0**	**29**	**3**	**62**	**15**	**25**	**3**
Hand-foot syndrome	**0**	**0**	**13**	**1**	**6**	**1**	**54**	**17**
Dermatitis	11	0	20	0	26	1	27	1
Fatigue/asthenia	47	5	48	4	46	4	42	4
Elevated bilirubin	11	5	36	11	17	6	48	23
	Heavily pre-treated patients NUC-3373 ± LV Q1W or Q2W		**First-line patients** 5-FU/LV infusional days 1&2, Q2W		**First-line patients** 5-FU/LV bolus days 1-5, Q4W		**First-line patients** Capecitabine BID, 2wks on, 1wk off	

- Grade 4 treatment-related AE (1x bilirubin)
- Grade 3 treatment-related AEs (2x ALT, 2x ALP, 2x nausea, 2x anemia, 1x AST, 1x hyponatremia, 1x fever, 1x fatigue)
- FUTP, the primary cause of 5-FU toxicity and a dose-limiting factor, has not been detected in NUC-3373 treated patients

* NUC-3373 All-cause adverse events, selected relevant to comparator data
Berlin et al (2021) Ann Oncol; 32: Suppl 5 Abstract ID 745P (ESMO poster September 2021)
Data as of April 2021

NuTide 302

NUC-3373: Colorectal Cancer Patient Case Studies (interim data)



Disease Control Rate: 62% (efficacy evaluable population n=26)

Berlin *et al* (2021) *Ann Oncol;* 32: Suppl 5 Abstract ID 745P (ESMO poster September 2021)
Data as of April 2021

NuTIDE 302

NUC-3373: Ongoing Colorectal Phase 1b/2 Study (interim data)

Colorectal Cancer

67 years, female
3 prior lines

1) CAPOX (adjuvant):
for **3 months**
relapsed 9 months post-adjuvant therapy
2) FOLFIRI:
progressed within **3 months**
3) Lonsurf:
progressed within **3 months**

RAS unknown
Target lesions: 1 (peritoneum)

NUC-3373
2,500 mg/m^2 q1w

40% reduction in target lesion

Partial Response:
3.5 months

Colorectal Cancer

69 years, male
2 prior lines

Diagnosed with metastatic disease
1) CAPOX:
progressed within **2 months**
tumor **increase of 35%**
2) FOLFIRI:
progressed within **1.5 months**

RAS unknown
Target lesions: 2 (liver)

NUC-3373
1,500 mg/m^2 q1w

28% reduction in tumor volume

Stable Disease:
5.1 months*

Colorectal Cancer

52 years, male
5 prior lines

1) FOLFOX (adjuvant):
for **4 months**
relapsed 4 months post-adjuvant therapy
2) FOLFIRI:
progressed within **6 months**
3) Irinotecan + panitumumab:
progressed within **6 months**
4) Irinotecan + panitumumab + telaglenastat:
progressed within **6 months**
5) Nivolumab + enadenotucirev:
progressed within **3 months**

RAS wildtype; BRAF mutant
Target lesions: 3 (2 lung; 1 liver)

NUC-3373
1,500 mg/m^2 q2w

15% reduction in tumor volume

Stable Disease:
4.5 months

* patient missed 6 consecutive doses due to COVID-19 and progressed, but continued on study for a total of 8 months due to clinical benefit

NuTIDE 302

Graham *et al* (2020) *Ann Oncol* 31: Suppl 4 Abstract ID :464P (ESMO poster September 2020)
Coveler *et al* (2021) *J Clin Oncol* 39: Suppl 3 Abstract ID: 93 (ASCO GI poster January 2021)

NUC-3373: Ongoing Colorectal Phase 1b/2 Study (interim data)

Colorectal Cancer

47 years, male
4 prior lines

1) FOLFOX (adjuvant):
for **5 months**
relapsed 8 months post-adjuvant therapy
2) FOLFIRI: + bevacizumab
progressed within **18 months**
3) FOLFIRI + cetuximab:
progressed within **8 months**
4) Lonsurf:
toxicity within **3 months**

RAS wildtype
Target lesions: 5 (2 lymph nodes; 2 peritoneum; 1 liver)

NUC-3373
1,500 mg/m^2 q1w

Stable Disease:
5.1 months

Colorectal Cancer

57 years, male
4 prior lines

1) CAPOX (neoadjuvant/adjuvant):
for **6 months**
relapsed 2 months post-adjuvant therapy
2) FOLFIRI:
progressed within **3 months**
3) Lonsurf:
progressed within **2 months**
4) RXC004 (Wnt inhibitor):
progressed within **1 month**

RAS unknown
Target lesions: 3 (lung)

NUC-3373
1,500 mg/m^2 q1w

Stable Disease:
3.8 months

Colorectal Cancer

67 years, female
5 prior lines

1) FOLFOX (adjuvant):
for **5 months**
relapsed 2 years post-adjuvant therapy
2) FOLFIRI:
for **5 months**
3) Irinotecan + Lonsurf + bevacizumab
for **33 months**
4) CAPOX:
progressed within **1 month**
5) Regorafenib:
progressed **within 2 months**

RAS mutant
Target lesions: 2 (1 liver; 1 abdomen)

NUC-3373
1,500 mg/m^2 q1w

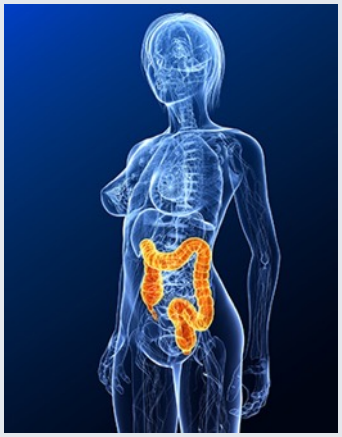
Stable Disease:
3.1 months

Graham *et al* (2020) *Ann Oncol* 31: Suppl 4 Abstract ID :464P (ESMO poster September 2020)
Coveler *et al* (2021) *J Clin Oncol* 39: Suppl 3 Abstract ID: 93 (ASCO GI poster January 2021)

NuTIDE 302

NUC-3373: Potential Colorectal Phase 3 Study

NUTIDE 323



Patients with advanced colorectal cancer who have progressed after first-line treatment

R

NUFOX + bevacizumab

or

NUFIRI + bevacizumab

FOLFOX + bevacizumab

or

FOLFIRI + bevacizumab

PFS

Enrollment | *Treatment* | *Endpoint*

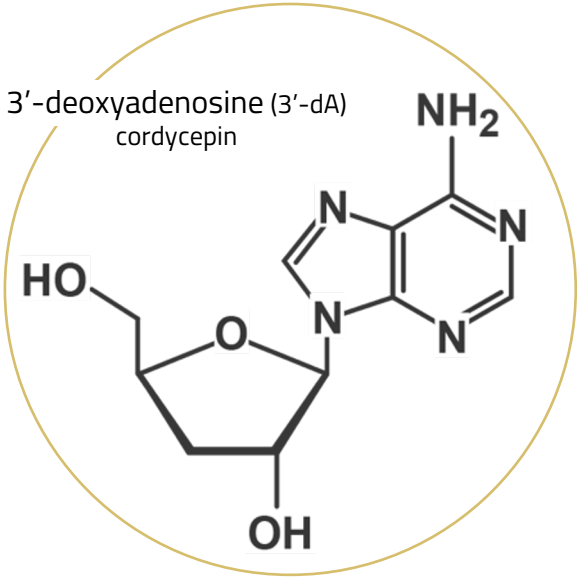
NUTIDE 323

NUC-7738

A transformation of 3′-deoxyadenosine

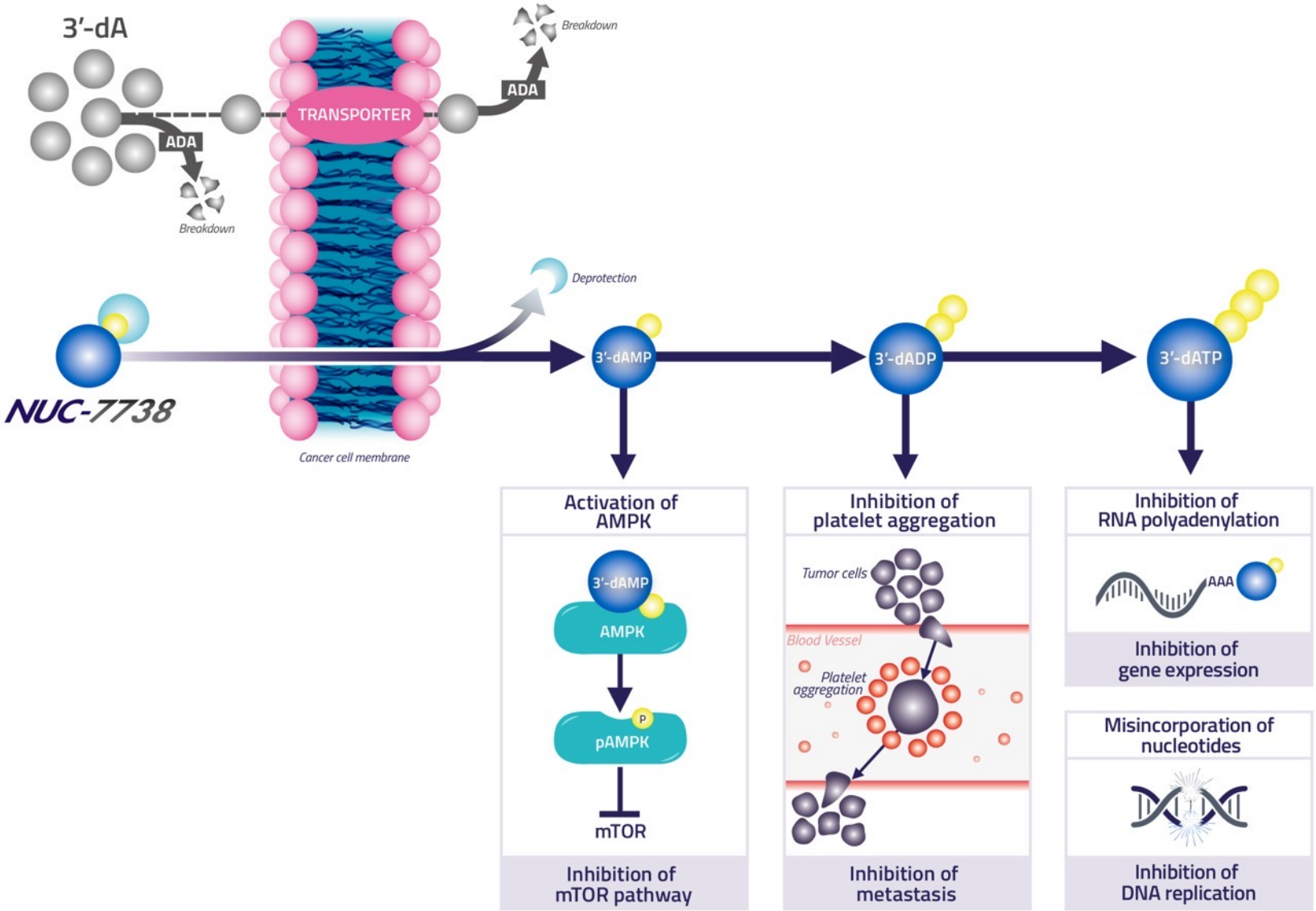
NUC-7738: Origin of 3'-deoxyadenosine

Cordycepin: A Traditional Chinese Medicine



1950: **3'-dA** isolated from *Cordyceps sinensis*

NUC-7738: Multiple Anti-Cancer Modes of Action



NUC-7738: Ongoing Solid Tumor Phase 1 Study

- Phase 1 dose-escalation study in patients with advanced solid tumors
- All patients have metastatic spread
- Rapidly progressing disease
- Exhausted all other therapeutic options
- Objective: Recommended Phase 2 dose + schedule

NuTide 701

Number of patients (enrolled to date)	Age (median)	Prior chemotherapy regimens
29	63 (range 39-77)	2.5 (range 1-7)

Blagden *et al* (2021) *Ann Oncol*: 32: Suppl 5 Abstract ID 566TiP (ESMO poster September 2021)
Data as of July 2021

NUC-7738: Ongoing Solid Tumor Phase 1 Study (interim data)

Favorable safety profile
- No Grade 3 or 4 treatment-related AEs
- No DLTs

Attractive PK profile
- Efficient conversion of NUC-7738 to 3'-dATP
- Prolonged intracellular half-life of 3'-dATP (>50 hours)

Metastatic Melanoma

62 years, female
2 prior lines

1) Nivolumab + ipilimumab:
discontinued within **1 month**

2) CK7 inhibitor:
progressed within **1 month**

Target lesion: 1 (pelvic side wall)

NUC-7738
Starting dose 14 mg/m^2 q1w
(8 dose escalations)

14% reduction in tumor volume

Ongoing pleural effusion resolved: no further drainage required and lung function normalized

Treatment Duration:
18 months
(Stable disease for 12 months)*

Metastatic Melanoma

65 years, female
1 prior line

1) Nivolumab + ipilimumab:
discontinued within **1 month**

Target lesion: 1 (lung)

NUC-7738
Starting dose 400 mg/m^2 q1w
(1 dose escalation)

7% reduction in tumor volume

NUC-7738 treatment enabled complete resection (R0)

Treatment Duration:
11 months
(Stable disease for 9 months)*

Metastatic Lung Adenocarcinoma

65 years, male
2 prior lines

1) Carboplatin + pemetrexed:
progressed at **6 months**

2) Docetaxel:
progressed at **4 months**

Target lesions: 2 (lung)

NUC-7738
Starting dose 42 mg/m^2 q1w
(4 dose escalations)

46% reduction in target lesion 1

Target lesion 2 changed in character; small dense core surrounded by larger diffuse "ground-glass" periphery

Treatment Duration:
6 months

* Treatment beyond PD allowed per protocol for patients still receiving benefit

Blagden *et al* (2021) *Ann Oncol*: 32: Suppl 5 Abstract ID 566TiP (ESMO poster September 2021)
Data as of July 2021

NUTIDE 701

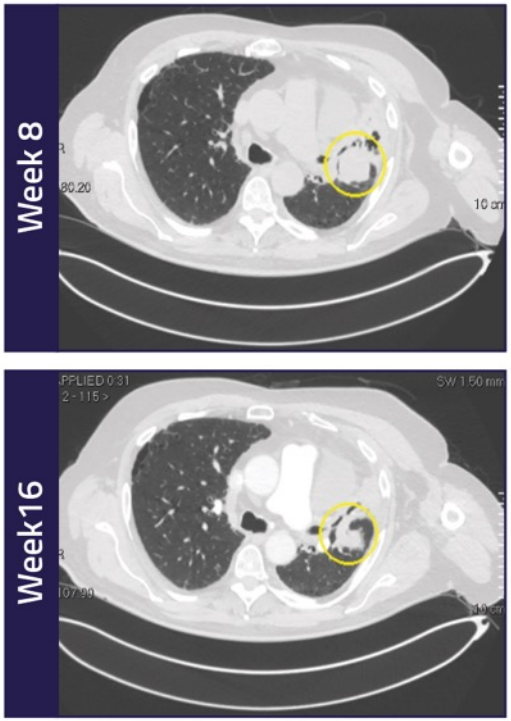
NUC-7738: Ongoing Solid Tumor Phase 1 Study (interim data)

Metastatic Lung Adenocarcinoma

65 years, male - **2 prior lines**

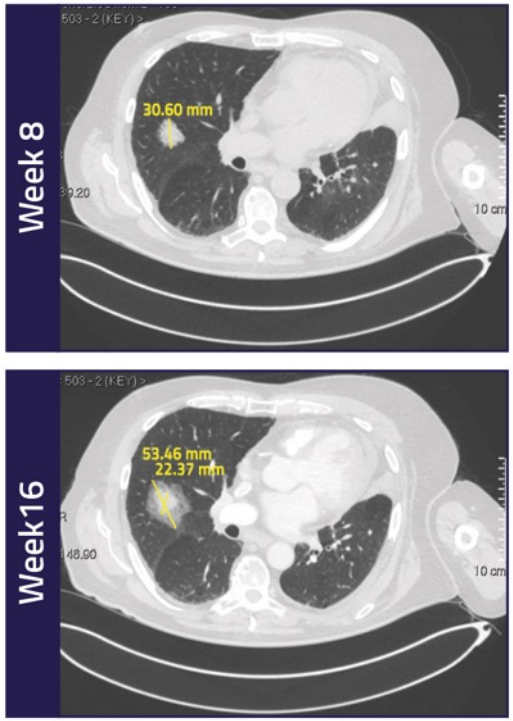
Target Lesion 1:

Encouraging signs of anti-tumor activity with a **46% reduction** in lesion between week 8 -16 (41mm to 22mm)



Target Lesion 2:

Positive change in character (week 8 -16), with a smaller dense core surrounded by a larger diffuse "ground-glass" periphery



NuTIDE 701

Symeonides *et al* (2020) *Ann Oncol* 31: S501 Abstract ID: 600TiP (ESMO poster September 2020)

Strong Intellectual Property Position

Worldwide exclusive rights for all programs: **697 granted patents** and **348 pending applications***

Key Patents	Status	Expiration+ (excluding any extensions)	Territories
ACELARIN	**463 granted, 168 pending, including:**		
Composition of matter	*Granted (EP, US), Pending (JP)*	**2033 / 2035**	+ others
Formulation	*Granted (EP, US, JP)*	**2035**	+ others
Manufacturing process	*Granted (US, JP), Pending (EP)*	**2035 / 2036**	+ others
Use	*Granted (EP, US, JP)*	**2035 / 2038**	+ others
NUC-3373	**66 granted, 104 pending, including:**		
Composition of matter	*Granted (US, EP, JP)*	**2032**	+ others
Formulation	*Pending*	**2036**	+ others
Manufacturing process	*Pending*	**2038**	+ others
Use	*Pending*	**2037 / 2038**	+ others
NUC-7738	**53 granted, 48 pending, including:**		
Composition of matter	*Granted (EP, US, JP)*	**2035**	+ others
Formulation	*Pending*	**2036**	+ others
Manufacturing process	*Pending*	**2038**	+ others
Use	*Pending*	**2042**	+ others

+Expiration for pending patents if granted
*As of 16 August 2021

Key Milestones: 2H 2021 / 1H 2022

ACELARIN	PHASE	EVENT	2021 2H	2022 1H
Biliary (NuTide:121)	Phase 3	First Interim Analysis	X Recruitment	X Readout
NUC-3373				
Solid Tumors (NuTide:301)	Phase 1	Data	X	
Colorectal (NuTide:302)	Phase 1b	Data	X	
	Phase 2	Initiate study / Data	X	X
Colorectal (NuTide:323)	Phase 3	Initiate study	X	
Solid Tumors (NuTide:303)	Phase 1b	Initiate study		X
NUC-7738				
Solid Tumors (NuTide:701)	Phase 1	Data	X	X
	Phase 2	Initiate study / Data	X	X

Investment Highlights

Improving Survival Outcomes

Focused on significantly improving survival outcomes for patients with cancer by applying our phosphoramidate chemistry technology

First-In-Class

Acelarin has achieved impressive response rates and has the opportunity for accelerated approval in front-line biliary tract cancer

Broad IP Protection

Strong IP position for all product candidates and worldwide exclusive rights

Standard of Care

NUC-3373 has the potential to replace 5-FU in colorectal cancer and other solid tumors

Significant Milestones

Numerous value inflection points throughout 2021 and 2022

Novel ProTide

NUC-7738 is a transformation of a novel nucleoside analog and has multiple anti-cancer modes of action

Experienced Team

Accomplished management team, backed by leading biotech investors

NUCANA

Nasdaq: NCNA

E: info@nucana.com

Global Headquarters: 3 Lochside Way, Edinburgh, EH12 9DT United Kingdom